

## VE TESTING

Contact: Steve Maresso, KB9OLD at 847/ 477-3518

Testing is conducted quarterly at 7:00 PM on the third Tuesday for the months of February, May, August, and November. Walk-ins are welcome until 8:00 PM. No appointment is necessary. Testing requirements:

1. Cost for 2017 is \$15.00 (Cash or check made payable to ARRL). If initial test element is passed, the person testing may continue take the next test element(s) at no extra charge during the given session. Retesting of an element failed during the same testing session will require payment of an additional \$15.00 test fee.

2. Must show original and provide copy of Amateur Radio license and/or CSCE (if upgrading).

3. Must show a valid Government Issued Photo ID (Passport, Driver's License or State ID card) for identification.

4. Social Security or FRN number required.

5. Location: Free Methodist Church, 934 N. Seminary, Woodstock, IL 60098

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## Wednesday Night 6 Meter Net

Just as a reminder the 6 meter net/forum is held every Wednesday at 7-8:00 pm on 50.130 USB.

See you on Frequency.  
Pierre K9EYE  
Net Control

\*\*\*\*\*

STRAY MY YL once said, "Does that Antenna have to stay up all the time?" I replied, "Yes, it does."

[AA7LX](#) de eham

## MEETING NOTICE

June 6, 2017

(D-Day - Digital Day ?)

Socializing: 6:30 PM

Meeting: 7:00 PM

Crystal Lake Bank  
5100 Northwest Hwy (Rt. 14)  
Crystal Lake, IL 60014

PROGRAM: **Nobody Knows**

Come to meeting for Surprise

Congratulations ! Jerry Rosalius, WB9Z, was inducted into the CQ DX Hall of Fame. He has been on many DXpeditions over the years and 7 were DXpeditions of the Year ! Also inducted was Bill Moore, NC1L (SK ), who was ARRLs DXCC Manager for 20 years.

## RIP

Dennis Schulmeister

1946 -2017

K9WMS, Silent Key

After a brief hospital stay in May , Dennis passed away on May 22. He was an MCWA member and a VE with KB9OLD's team. Dennis was also a DXer (DXCC 327) and a member of the W9CA club as well as operator of the W9CA skimmer. Dennis was a good friend to many of us and will be missed. Our condolences to his wife Peggy (K9PEG) and family.

# M.C.W.A.

June 2017



## THE GREAT BARRIER GRIEF AND OTHER CHALLENGES

The DX challenges have been numerous in recent weeks and months. Along with lower sunspot activity, flares and thunderstorms I have been using quite a bit of filtering to make my QSO's. Many of the DX signals are moderate to strong, but QRM, QRN and QSB have forced me to filter a lot, and generally speaking, it has been successful. But an additional element to contend with is the East Coast Advantage, which I call "The Great Barrier Grief." Wishing to work stations in Nepal and Eritrea I have been trying to overcome the pile-ups on the East Coast. Maine to the Caribbean region have been especially favored with the recent propagation patterns into Mid-Asia and Eastern Africa. By the way, I have nothing against East Coast hams. I started in that region and moved to the Midwest in 1980. It's simply a matter of geography and certain wave patterns in relation to the Atlantic Ocean. Other than moving eastward again, it's just another challenge of working DX. It isn't impossible, but it can be more difficult at times for a station running 200w and various wire patterns. Know this, I don't give up!

Those running QRP enjoy those challenges. And to quote a motivational speaker, "You can be what you want to be." So it is with ham radio. Unless there are land restrictions or financial limitations, our hobby allows for a more aggressive approach in terms of set-up. Such efforts can assist an operator who has a shorter lifespan and wants to be aggressive (hi hi).

One pleasant DX log over the last two weeks has been with E51DWC in the South Cook Islands. Milan, OK1DWC, has been running a nice operation from there. I have worked him on 20m, 17m and 12m. One recent evening I saw him spotted on the cluster for 12m phone. I went into the shack and worked him on first or second call. This QSO occurred at 0249 UTC which was at least an hour and a half past sundown. As mentioned in prior articles, the bands are a lot more open than we think.

Another nice aspect of the current season, are the recent openings on 6m. Some evenings have been really exciting on the Magical Band. When 6m is open, it doesn't take a lot of special equipment and wattage to have fun. And don't forget to check 10m when 6m is open. Sometimes the two are hot at the same time.

Heading into June, look for calls from T8CW, TX5EG, VK9AA and an assortment of other DX operations. At the end of June is Field Day. Typically a number of DX stations join in the swarm of signals. I am speculating that band conditions for North America will be moderately favorable if lightning isn't too dominant. Last year I had to visit a couple of FD sites in South Florida. Compared to those two sites, I can assure you that our local sites of K9RN and K9ESV have a lot more to offer for that event

Have a safe Summer and be careful with antenna projects. 73 Dave KA9OZP

## Tips for Becoming a Ragchewer

Jarrad Mitchell (VK3BL) on May 4, 2017

Recently there was an article expressing the opinion that the art of conversation on the radio bands is dead, and whilst I can certainly understand that perspective, I never seem to find myself short of a QSO and thought I might share some thoughts on the matter.

The tips vary from practice, to courtesy, to the art of station building, and I hope there is some value in them to those wishing to rag chew more.

### Calling CQ:

For whatever reason, there are a bunch of hams that don't like to call CQ. Why this is the case is perhaps for a bunch of PhD candidates, but it is of little importance to this article. The fact of the matter is if you can pluck up the courage to call CQ, you are extending the hand of friendship. If there is one thing I have noticed on air, its that those that call CQ are never short of a QSO.

### Choose Your Band:

Some bands are better for ragchews than others. 80M & 40M are ragchew bands par excellence, for a couple of reasons. Firstly, the very nature of their propagation means you are more likely to be heard by other locals, and not only that, you are more likely to be heard by them on consecutive weeks and months. That allows you to build up friendships, and there is nothing better than talking to a friend. The higher bands can of course be great for DX ragchews, but you are likely to need a well equipped station.

### Choose Your Antenna:

Not all antennas are equal. On 80M & 40M, the ragchewers' weapon of choice should be a fairly low Inverted-V or Flat Top dipole. The height should be no more than 60ft for 80M, and 30ft for 40M. This may seem a little strange to DXers and those who have studied antenna theory, but the truth of the matter is that 'cloud burners' that point all their gain upwards are great for putting out a whacking big signal to your fellow countrymen, and likewise, hearing them. If you don't have one, setup a cloud burner! And avoid Verticals; they're not a ragchew antenna.

### Put "Fire In The Wire":

Seasoned ragchewers and CQ callers know that the more power you radiate - everything else being equal - the better you will be heard. No one wants to have an extended QSO with someone who is just above the noise, so the more power you can put in the direction of your fellow countrymen,

the easier they will be able to copy you through QSB, QRM & QRN, and the more enjoyable the QSO will be for them. Running power is not about egos - its exactly the opposite - its about making things as easy as possible for your QSO partner. And that feeds into the next point.

### Have Good Audio:

Now I don't mean super wide SSB or anything like that. Whilst that might be an interest of yours, the fact is that traditional communications grade audio with its limited bandwidth has a higher signal to noise ratio than eSSB, so you will get more 'talk power' for your watt. It doesn't end there, however; you also want to be nice to listen to. Who on earth is going to talk to someone for hours if they sound terrible?! Don't be afraid of a little bass, but always make sure you've got +2 or more on your highs. Ask a buddy to make some recordings of you on air, and listen to yourself; you can't do this just using the monitor function of your rig as not only is it often not accurate, there is a thing called 'jaw bone conduction' that changes how you hear your own voice when you talk. When you are in a ragchew, if someone mentions fading or QSB, perhaps turn the compressor up a few notches and ask them if they are able to copy you better. Basically, learn to make the most of your radio, and do what you can to help the other party.

### Lastly, Be Courteous:

As you may have noticed, a common theme in the advice proffered here is that of utmost importance is the experience of the person you are talking to, and that is not limited to the technical aspects of the hobby. When you're having a QSO, use a notepad to write down things the other party(s) have said, so that you remember to further the discussion of them when it is your turn to talk. If the party talks about a project they or their spouse is undertaking, write it down in your log so you can ask about it next time. If they tell you about the setup (radio, antenna etc) they are using, make a note of it in the log. Basically, show interest in the other person and their life. The other part of being courteous revolves around skills we should all have in everyday life. Don't discuss taboo or polarizing topics, and keep any discussion of politics to journalism rather than editorializing. By that I mean, its OK to state that XYZ party has just been elected or similar, but HAM radio is not for discussing the merits of said party of politician. Its probably ok to discuss how social policy effects you, e.g. 'these new pension / healthcare cuts are making it hard for me', but you should NEVER try to persuade someone else or tell them what to think. If in doubt, avoid politics and religion; the best ragchewers discuss neither. Avoid cuss words, misogyny, racism, and all those types of things. You may think you know someone really

# M.C.W.A.

June 2017

## Ragchewing - cont'd

well, but perhaps you do not know that their son or daughter is homosexual. You certainly don't know who is listening. Do your very best not to offend.

### Etiquette:

This may seem a little like the previous tip, but the formal side of etiquette plays a big part. There are little things you can do that make it more likely for people to want to join the group. For example, most ragchewers hold down the key for a minute or more, so ID on every over, that way listeners know who is participating. Be ready for breakers, and try to remember to leave a little gap if you can. If someone does break in, its good form to say 'acknowledging VK2QA' or 'acknowledging the breaker'. Some operators will hand it over to the breaker straight away, but I prefer to wind up the present discussion in a timely manner and then throw it over to the breaker. I'm not sure there is a best approach, but I have found that my way of going about it doesn't seem to offend anyone.

### Most Of All, Encourage Further QSOs:

Let the other person know that you value the fact they have returned your CQ. If its the first time I have spoken to someone, I will almost always let them know that it was my pleasure, and that I would feel most honored if they would like to talk to me again in the future. I also go a step further, and let them know that the people I regularly ragchew with share similar values, and that they should always feel welcome to break in to one of my QSOs. I assure them that not only would I be honored, but so would my fellow participants. At the end of the day, human beings want to feel valued, and I recommend going out of your way to make sure every new person you make a contact with feels valued.

Anyway, this list of tips got quite a bit longer than I intended, so hopefully it has been of interest and of value.

As always, if you hear me round, say hello, even if we have had a difference of opinion on these forums. I was educated in Philosophy, and we learnt to argue our points of view without it being personal. In that vein, any disagreement we may have had in the past

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\* \* \* \* \*

## Ragchewing - cont'd

was from my perspective just a robust exchange of ideas, not an attack on someone's character.

73, Good DX and Good Ragchewing,

Jarrad VK3BL (tx eham)

{Ed. Ragchewing /conversation seems to be a "lost art" these days. In the past one would hear many interesting conversations & anecdotes on the bands . Now we hear "59 QSL" pretty much. Why is it that people don't engage in conversation ? The digital modes seem to attract more conversationalists. }

**STRAY** How can someone review a piece of equipment and they can't spell a 3 letter word correctly?

[VE3UUH](#) de eham

**Notice:** It is the intent of this Editor to resign as Editor with the completion of the December 2017 edition of the news. Started Dec. 2007... 10 years in long enough. Suggest finding a suitable replacement.

# M.C.W.A.

June 2017

## \$10 Studio Mic Boom

from Bob Raker, W0BR on May 16, 2017

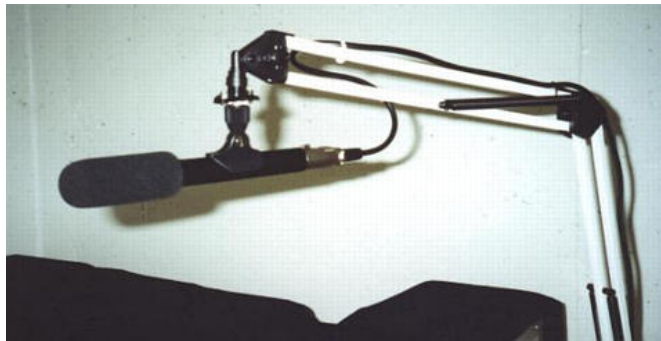
“Editor's Note: Due to the popularity of some of eHam's older articles, many of which you may not have read, the eHam.net team has decided to rerun some of the best articles that we have received since eHam's inception. These articles will be reprinted to add to the quality of eHam's content and in a show of appreciation to the authors of these articles.” This article was originally published on: 01/23/2001



Here's an inexpensive way to mount your microphone where you need it and leave room on your operating position.

Buy a “swingarm” desk lamp (top photo) - I found mine at Office Depot for \$8.99. Drill out the two rivets holding the bulb holder. Reverse the position of the mount. The holes in the mount just happen to line up with the mounting holes of a chassis-mount SO-239 coax connector, and the threads of the coax connector just happen to mate with a standard microphone clip. Remove the center pin and insulator, then grind off the back of the connector. Mount the former SO-239 with a couple of 6-32 screws. Install the microphone clip -- the entire process took me about 15 minutes.

The bottom photo shows my completed “studio” boom complete with a \$15 Radio Shack “close-out special” microphone (33-3017).



## Six Meter Club Hamfest

The combination Six Meter Club Hamfest/Antique Radio Club of Illinois Swap Meet/Midwest Classic Radio Net Hamboree is coming soon, Sunday, June 18, 2017, at the DuPage County Fairgrounds in Wheaton, IL.

K9JK will be at the June 6th meeting with 'advance' tickets available (\$6 versus \$8 at the gate), but I only have a few left.

Yes, “we” know it's Father's Day, but surely “Dad” can be allowed to get away in the morning and celebrate with family later in the day...Gates open at 7 a.m. (PLEASE do NOT come early)...main prize drawing is at Noon (the three cash prizes will be mailed if the winner is not present).

A flyer with more detailed info is on the Six Meter Club's web site at <http://www.k9ona.com/hfflyer2017.pdf>



## Glenn Baxter, ex-K1MAN, SK; Engaged in Protracted Enforcement Battle with FCC

Glenn Baxter, ex-K1MAN, of Belgrade, Maine, [died](#) on May 5. He was 75. In 2014, Baxter ultimately lost his battle to retain his Amateur Extra class license when the FCC dismissed his long-standing renewal application, citing an unpaid \$10,000 forfeiture stemming from violations over a period extending back several years.

“Anyone filing an application [who] is found to be delinquent in debt owed to the FCC and who fails to pay the debt in full or make other satisfactory arrangements in a timely manner will have their application dismissed,” the FCC said in a Notice of Dismissal appended to Baxter's Universal Licensing System (ULS) file. “Because you have failed to resolve this matter timely, your application is hereby dismissed.” Baxter had been licensed since 1956. The K1MAN call sign is now held by an individual living in New York.

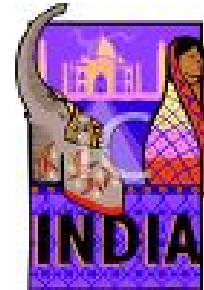
Over a period of decades, Baxter -- a licensed professional engineer in Maine and Illinois -- ran afoul of the FCC stemming from complaints of malicious interference resulting from his program-length AM transmissions under the flag of his self-styled American Amateur Radio Association. Baxter's transmissions included, news, interviews, commentaries, and rebroadcasts of ham radio news programs produced by others, including ARRL, with which Baxter also had feuded.

In 2012, the US District Court for the State of Maine ruled in the FCC's lawsuit to collect Baxter's fine, initially \$21,000. The Court agreed with the FCC on the first two counts -- willful or repeated failure to respond to FCC requests for information, and willful or malicious interference -- and granted summary judgments to the FCC in the amounts of \$3,000 and \$7,000, respectively. The Court declined to rule on the third issue -- communications in which an amateur station licensee or control operator has a pecuniary interest -- saying that issues of material fact remained to be litigated.

de ARRL

## Dayton/Xenia Hamvention

By the time this reaches our members it will all be history. Those of you who were able to make this event, we'd very much appreciate it if you could share your observations, not just at the meeting in June, but also here in print.



## Telecommunications Ministry in India Orders Halt to Online Transceiver Sales

The [Mumbai Mirror in India reports](#) that a complaint by radio amateurs has prompted the Telecommunications Ministry to order online purveyors, including eBay and Amazon, to stop selling wireless transmitting equipment. According to the newspaper, a group of hams wrote the Wireless Advisor in the Telecommunications Ministry last fall to warn that online sales of wireless equipment could pose a national security threat. Their warning followed reports of “highly suspicious” 2-meter transmissions along the Bengal-Bangladesh border

The letter drew the attention of the Intelligence Bureau, the prime minister's office, and the military. The Telecommunications Ministry has now ordered e-commerce websites to stop selling transmitting gear online, effective immediately. The law in India requires that those selling such equipment have a dealer's possession license and users have a license to transmit.

Ankur Puranik, VU2AXN, spokesperson of the Mumbai Amateur Radio Society, told the newspaper, “...our concern is that the powerful equipment can fall into wrong hands and be misused. More importantly, these two-way radios can tune into any frequency including confidential frequencies used by law enforcement agencies. They can be misused to listen to confidential wireless conversations.”

de ARRL

Ed. This needs to happen in U.S. !

STRAY Always luv it when some newbie on digital modes sends his call with phonetics.



## FROM THE EDITOR'S DESK

### Important Notice - New MF and LF Bands are Not Yet Available to Use!

QST de W1AW

> From ARRL Headquarters

Newington CT May 5, 2017

To all radio amateurs

SB QST ARL ARLB013

ARLB013 Important Notice - New MF and LF Bands are  
Not Yet Available to Use!

The new 630-meter and 2200-meter bands are not yet available for Amateur Radio use. The effective date of the recent FCC Report and Order granting these allocations has not yet been determined, and until the start date has been set, it is not legal under an Amateur Radio license to transmit on either band.

The R&O can be found on the web in PDF format at,  
[https://apps.fcc.gov/edocs\\_public/attachmatch/FCC-17-33A1.pdf](https://apps.fcc.gov/edocs_public/attachmatch/FCC-17-33A1.pdf).

The fact that the new rules contain a new information-collection requirement - notification of operation to the United Telecoms Council (UTC) - complicates the matter of determining an effective date. According to the FCC R&O, the Office of Management and Budget (under the Paperwork Reduction Act) must first approve the information-collection requirements in Part 97.303(g)(2), which must be in place before radio amateurs can use the new bands.

Once that happens, the FCC will publish a notice in The Federal Register "announcing such approval and the relevant effective date."

ARRL will announce the UTC notification procedures and the effective date to use these new bands as soon as these are known.

{Ed. - So why all the hype from ARRL if we still can't use these bands ??? From my limited experience with VLF I seem to remember it being some

what less effective for DX than 160 meters and that it is more of a Winter time band. Please correct me if I'm wrong.

Perhaps these bands should be turned over to all classes of licensees to encourage more activity. But it still boils down to "we can't use it, yet" ! Are there any services there which need need to be reallocated ? Don't recall hearing much down there, but it doesn't mean there isn't anything on those frequencies. }

### The Storied History of the Ham Radio Call Sign Mike Ritz (W7VO)

Every legal amateur radio operator in the world has a government issued call sign, and many hams are better known to their radio friends by their call sign than they are by their given birth name. The uniqueness and prestige of a call sign is indeed one of the most important things that provide the persona that IS amateur radio. Remember when you first opened that letter from the FCC, it was not unlike Christmas day as you learned what your new call sign would be. From then on, you would be known by that call sign.

Call signs are important indeed. Think of the call sign W1AW, and 99% of hams would know that this once identified Hiram Percy Maxim, the founder of the ARRL. The call sign was so important that it became the official call sign of the ARRL. But, if one thinks about it, we don't really own these call signs, they're leased to us by the FCC for our use as long as we remain licensed. We are the caretakers, and when we become a silent key, they are passed along to the next caretaker. (This author is the fifth caretaker of the W7VO call sign, and seventh if one includes the original 7VO, which has been traced back to 1922.) However, this begs the question; where did our treasured call signs first originate, and what is the evolution of this most important moniker? Of course, one cannot discuss call signs without covering some of the storied history of amateur radio itself in the process.

The origins of amateur radio call signs go back to the earliest days of radio, informally at first, then more formalized as major world events transpired that changed the face of amateur radio itself. This evolution can be broken down into five distinct periods of history:

next page ----->

## Call Signs - cont'd

- 1) The Pioneer Years, pre - 1918
- 2) The Reconstructive Years, 1918 - 1927
- 3) The Pre-War Years, 1928 - 1941
- 4) The Post-War Years, 1945 - 1975
- 5) The Modern Era, 1975 - present

### The Pioneer Years, pre 1918, “The Days of Anarchy”

The very early days of ham radio was an interesting time, not completely unlike the untamed wild west itself. Prior to 1912 there were no real laws governing the new communications medium known as “wireless”, it was for the most part completely unregulated. The airwaves of the time consisted of signals emitting from crude spark gap transmitters, by a combination of governmental, commercial interests, and fledgling ham radio operators (who mostly worked for these other interests). The Marconi Company was among the first to use three letter call signs to identify their transatlantic coastal wireless telegraph stations, and to identify their company owned shipboard stations. The coastal station call signs started either with a “V” (for “Voice of (somewhere)”, or “M” (for “Marconi”), while the shipboard stations just used the starting letter of “M”. Amateur radio operators for the most part started off by using just names as identifiers, such as “BILL” or “MAC”, then that evolved into a combination of two or three letters, a mixture of letters and numbers, or even just numbers! It would be easy to see that there ended up being a LOT of overlap in call signs, both commercially, and among hams themselves. Was “MAC” a Marconi Company owned shipboard station sailing off the coast of Newfoundland, or Miles A. Cornwall (using the call sign “MAC”), the ham radio operator in New York? With such a limited range for the spark gap transmitter (often around a hundred miles or so), this wasn’t much of an issue, (at least at first.)

However, as the airwaves became more and more congested it was clear that more needed to be done to coordinate and publish established call signs to reduce conflicts. While there were publications that listed known commercial wireless stations, the May 1908 publication of Modern Electrics magazine published one of the very first list (a “wireless registry”) of known amateur wireless radio operators, their associated call signs, and also the approximate wavelength they operated on. (One could argue that these are really the first ten documented ham radio operators!) Most of these hams used two letter identifiers signifying their initials, but one ham, Otto Curtis of Rochester, New York was simply known as “Q”, long before the letter became associated as fictional James Bond’s technical advisor.

By May of 1909 the “wireless registry” listed many more amateur wireless stations and their call signs, most listed were using three letters by now. (It’s interesting to note that many used two letters followed by the third letter of “M” to denote that they were employees of Marconi Company). Some hams were listed with a combination of letters and numbers, such as J.C. Randall of Albany, New York who was listed signing as “S4”, and F.W Harris of Renton, Washington, who signed simply as “3B”. One special call sign listed was that of Earl C. Hawkings of Minneapolis, Minnesota who utilized the call sign of “HAM”. I guess one could argue that he was the first real “ham”!

In such an unregulated environment that had many wireless stations competing, (all utilizing transmitters with very broad emission spectrums), and coupled with crude receivers on the other end, conflicts caused by both unintentional and intentional interference were commonplace. This was getting worse by the day, and one day it all came to a head. That day was April 15, 1912.

On that fateful day, the seemingly impossible happened. The “unsinkable” RMS Titanic (call sign: MGY), with 2,200 passengers aboard hit an iceberg in the North Atlantic, and was sinking fast. While there were hundreds of passengers eventually rescued by the RMS Carpathia (call sign: MPA), several problems with wireless radio communications of the day played a key role in delaying the rescue effort, and undoubtedly added to the Titanic’s fatality totals. For one, the shipboard wireless station aboard the Titanic was owned and manned by employees of Marconi Company. Marconi’s main competition for the ship wireless telegraph market was bitter rival Telefunken, based in Germany. At the time Marconi Company owned stations were not allowed to have any contact with Telefunken owned stations (call signs beginning with a “D”), and as a result mes



sages from the competition were largely ignored. In addition, there was both unintentional and intentional interference from other commercial stations (and hams alike), making for even a more chaotic scene. Many thought the distress signals from the doomed ship were fake. After all, how could the “unsinkable” Titanic really be sinking? It must be “fake news”!

There was also a third issue. The Marconi Company early on had established the “CQD” (“CQ Distress”), message. The now familiar “SOS” (“Save Our Ship, or “Save Our Souls”), had actually been made the worldwide standard at the second International Radiotelegraphic Convention, was signed in 1906, and became effective on July 1, 1908. This was a full four years earlier than the Titanic sinking. Only the Marconi Company equipped ships still used “CQD” as the standard distress message when the Titanic ran aground.

While the above is a nice narrative about a well-known disaster, what does this have to do with amateur radio call signs? When the dust settled, the US Congress began investigations into how to keep this disaster from repeating itself. Besides the sole remaining Titanic wireless operator, Harold Bride, the radio pioneer and tycoon Guglielmo Marconi himself was called before Congress to explain his company’s practices. The end result of these hearings became what is known as the Radio Act of 1912, written into law on August 13, 1912. This historic act had the following provisions, among others:

- 1.) It established a Federal law that mandated that all ships constantly monitor distress frequencies, (the primary one at that time set at 600 meters (500 kHz))
- 2.) Mandated that the familiar Morse “SOS” be the defacto standard for distress calls
- 3.) Mandated that all radio stations in the US be inspected and licensed by the federal government.
- 4.) Provided the possibility of fines for intentional or malicious interference
- 5.) Limited experimenters (amateurs) to 200 meters wavelength (about 1.5 MHz) and lower, (as frequencies higher than that were considered “useless”!)

The end result of the new licensing requirements dramatically dropped the number of amateurs from about 10,000 to around 1,200 almost overnight, and almost killed off the hobby. This was a win for the Navy and commercial wireless interests, as they really didn’t want any “amateurs” on the air anyway, interfering with their airwaves. While US stations, (including amateurs), had to be inspected and licensed by the US government, this act didn’t really do much for formalizing call signs per se.

On the international front, the International Radiotelegraph Convention of 1912 established the first internationally recognized call sign standards, based on the country. This standard replaced the random three letter call signs prevalent then. Major world powers were given single prefixes such as “N”, “W”, and half of the “K” prefix allocations (KDA-KZZ) (United States), “A”, “D”, and “KAA-KCZ” (Germany), “F” (France), “B”, “M”, and “G” (Great Britain). The convention was signed at the International Radiotelegraph Conference in London on July 5, 1912. It is important to note that while these international standards were applied to commercial wireless stations, amateurs for the large part were still left on their own.

On May 9, 1913, the official United States Policy for Radio Call Letters was published:

“The call letters for amateur stations in the United States will be awarded by radio inspectors, each for his own district, respectively according to the following system:

(a) The call will consist of three items; number of radio district; followed by two letters of the alphabet. Thus, the call of all amateur stations in New England (which comprises the first district) will be the figure “one” in Continental Morse, followed by two letters; in California (in the sixth district) the figure “six” followed by two letters; in South Carolina the figure “four” followed by two letters; in Missouri the figure “nine” followed by two letters, etc. The letters “X”, “Y”, “Z”, must not be used as the first of the two letters.

The territory of each district was as follows:

(b) The three items; a given figure first, followed by two letters of the alphabet, thus may be combined in 598 different calls, which will probably suffice for the amateur sending stations in most districts for some time to come

----->

(c) Radio inspectors will insert amateur station calls in station licenses according to this system, and will keep a permanent chart, of 598 squares, lettered with the alphabet from left to right and from top to bottom ("A" to "W"), inserting in the appropriate square the serial license number of the station to which the call letters were awarded. Within these limitations radio inspectors will use their discretion in the award of calls, avoiding, of course, duplications.

(d) When a station is abandoned and the license canceled, or if a license shall be forfeited for violation of law, the call assigned to it may be allotted to another station.

(e) If the entire 598 calls have been exhausted, radio inspectors will issue additional calls, consisting of the figure of the district followed by three letters. From such combinations should be excluded the combination SOS, and PRB, all three-letter combinations beginning with QR or QS, all combinations involving the repetition of the same letter three times, three-letter combinations beginning with "K", "N", "W", "X", "Y", "Z", and other combinations, which, for various reasons, international, national, local, or individual, may be objectionable."

The "official" US amateur ham radio station call sign was officially born, but what is interesting to note here was that the Department of Commerce, who was responsible for these regulations, thought that 598 call signs per district were plenty "for some time to come." Little did they know that the number of US amateurs would balloon to the almost three-quarter million we have now!

Then on April 7<sup>th</sup>, 1917 the entire world of amateur radio was turned upside down, when by executive order amateurs were told to "dismantle and render inoperable radio wireless equipment, and antennas" as the United States formally entered "The Great War", World War One. This mandate applied to both receivers and transmitters, and all amateur licenses issued to date were immediately cancelled. Amateur radio was dead, and radio itself became a government monopoly utilized strictly for the war effort. To ignore this mandate could be considered an act of treason, so it was not taken lightly.

Radio amateurs, while no longer licensed, were a valuable asset for the war effort. They were encouraged by the government to help man coastal wireless stations and enlist in the Signal Corps for field radio operations.

#### The Reconstructive Years, 1918 - 1927, "Starting Over"

At the conclusion of the war the US Navy put together a very large push with the Congress to ensure that future amateur radio activity remained silent, so the military could continue to have the airwaves for themselves. Mostly due the effort of Hiram Maxim and the ARRL that effort was defeated, and amateurs could once again be licensed and back on the air starting in early 1919.

Since all licenses had been cancelled at the start of US involvement in the war, all previous call signs were forever lost. When the nine district radio offices once again opened for business amateurs lined up in an attempt to ensure low letter suffix assignments. (Are things really different now outside Apple stores these days when the new phones come out?) As early as 1920 some of the call districts had run out of two letter suffix assignments, so began the three letter suffix call sign. (That said, there were some reassignments of two letter call signs, if you knew the right person!)

By 1923, as both receiver and transmitter technology greatly improved, international contacts between amateurs were becoming commonplace. Amateur stations, for the most part, still didn't follow the call sign prefix standards set by the International Radiotelegraph Convention of 1912, so there were again problems related to duplication of call signs. Only this time on a worldwide scale. Remember that the policy established in 1913 did not cover call sign prefixes for amateurs, only the district assignments and suffixes. There could be a 2AL in New York working a 2AL in Brazil, or another one in England. Amateurs, (being inventive as they are), took the matter in their own hands, and sometime starting in the mid 1920's US amateurs began using an unofficial "u" or "U" as a prefix on call signs to denote they were from the US. By 1927 the prefix "nu" (North America, United States) became commonplace on QSL cards (example: nu6AA), while a ham in Canada would use "nc" (North America, Canada) as a prefix, (ie: nc7AA).

In 1925 the Department of Commerce opened up the "Z" letter suffix for assignment, and allowed the "Y" letter suffixes to be used for educational institutions. Examples of the latter are still in use to this day; Stanford University is often on the air

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with W6YX (originally 6YX), and down the road San Jose State University is still on the air (since 1928) with the W6YL call sign. The “X” letter suffix remained for “experimental” stations, and was not released as a 1X2 (ie: W7XQ), standard call sign until 1977. Two-by-three letter “X” suffix call signs remain to this day reserved for experimental stations. Not exactly as the Convention of 1912 dictated, but better than nothing!

The Pre-War Years, 1927-1941, “Amateur Radio is Here to Stay!”

The Washington Conference / Radio Act of 1927 established formalized US amateur radio bands, and finally put US amateurs under international prefix rules that were loosely established in the international conference of 1913. As a result of this act a new commission was formed, the Federal Radio Commission. The commission was assigned the task of issuing licenses, including amateur radio. Also part of this latest act, the US was finally going to follow the already established International Telegraph Union (ITU) call sign standards.

The ITU standards were upgraded to grant the entire “K” prefix to the US, in addition to the existing “W” and “N” prefixes. (Remember that Germany had the “KAA” to “KCZ” prefixes issued previously). The Navy was reserved the “N” prefix, while starting in 1928 the “W” and “K” prefixes were authorized for civilian services, such as amateur radio. As new amateur licenses were issued, and old ones were renewed, the “W” prefix was simply added to the existing call sign. For example, the call sign of 6UO, (or the unofficial nu6UO), became W6UO. The “K” prefix at that time was reserved for US possessions, such as Alaska, Hawaii, and other islands. (Note that “A” block letters were unassigned until 1947, when the US received the “AA” through “AL” prefix blocks). The US amateur radio call sign had finally taken its modern shape we all know today.

Unrelated to amateur history, (but a question that always seem to arise), is the history of how the US commercial broadcast stations got geographically divided into “K” (for stations West of the Mississippi), and “W” for Eastern stations. This oddity goes back to early Federal Radio Commission regulations, and was originally applied to ships operating either in the Atlantic, (“K” prefixes), or Pacific or Great Lakes area (“W” prefix). Eventually, this was applied to land based commercial stations as well, (but somehow in reverse order), using (with exceptions), a rough line matching the course of the Mississippi river.

In 1933 President Franklin Roosevelt requested the Secretary of Commerce to appoint an interdepartmental committee for studying electronic communications. A recommendation was made by the committee for the establishment of a new agency that would regulate all interstate and foreign communication by both wire and radio, plus telegraphy, telephone and broadcast, under one umbrella. This resulted in what became known as the Communications Act of 1934. A key part of this act was the creation of a new federal organization known as the Federal Communications Commission, (FCC) to replace the Federal Radio Commission that was previously established in 1927. Amateur licenses were now moved under this new commission, and this act also created many of the laws that still govern the hobby to this day.

On December 7, 1941, the “day that will live in infamy”, the world of amateur radio was upended for the second time, as the US was drawn into the Second World War. All amateur activity was officially suspended January 9th 1942 for the remainder of the war. The big difference here though, was that the FCC continued to issue and were allowed to renew amateur radio operator licenses. After all, that gave the government a ready pool of trained and certified radio operators and technicians for the war effort. There were no station licenses issued, and existing ones were considered revoked. Once again hams were forced to silence their stations but at least this time, unlike the previous war, receivers were still allowed to be used. This lasted until the war officially ended in September 1945, and shortly afterwards amateurs were granted limited permission to get back on the air in November of 1945, with only the ten and two meter bands to start. The US amateurs were back, even if only in a limited capacity at the time.

The Post-War Years, 1945-1975 “The Glory Years of Amateur Radio”

The Atlantic City International Telecommunications Union (ITU) Conference of 1947 (the ITU had changed its name in 1932), reallocated some call sign blocks, and granted a few developing island nations their own prefixes. Meanwhile in the US, the call sign districts were moved around to equalize ham populations.

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During the war the Midwest , and West coast industrial centers had greatly increased the amateur radio populations in those areas. As a result, a new 10th call district formed for the central Midwest, allowing Wisconsin, Illinois and Indiana to have the 9<sup>th</sup> district to themselves. The 6<sup>th</sup> district was changed to encompass California only. The remaining states that used to be part of the 6<sup>th</sup> district (Nevada, Arizona and Utah), were moved into the lesser populated 7<sup>th</sup> district. As licenses were renewed, the new call sign districts were mandated, and often entire call signs changed as a result. A new call was assigned to denote the new district, but one “might” keep their old suffix if it was currently unassigned in the new district. If the suffix was already assigned to somebody in the new district, a new suffix was assigned as well. For example, pioneer Charles Newcombe, 6UO, in Yerington, Nevada became W6UO in 1928, but had to change to W7VO when the state became part of the 7th district in 1947 as W7UO was already in use. The rule allowing special call sign suffix dispensation lasted until 1978, when the systematic call signs program began. (More on that later.)

Also at this time US Possessions had own unique prefixes assigned, ie: KP4 for Puerto Rico, KH6 for Hawaii, and KL7 for Alaska.

In 1951 there was a big push to create an “entry level” amateur license, so in response the FCC created a new Novice amateur radio license class, originally as a one year, non-renewable, low power, and CW only license. These new “novices” were assigned either a WN or a KN prefix, but the “N” would be dropped from the call sign once the licensee upgraded. (For example, new novice WN7XYZ would get a new call sign of W7XYZ once he upgraded.). When the FCC ran out of “KN” and “WN” call signs, they began issuing “WV” prefixes for novices, which became “WA” or “WB” prefix calls when upgraded. US Possessions used “W” for the first letter of the novice prefix, (ie: WH6ABC to denote a novice call sign, which changed to KH6ABC when upgraded).

Another interesting thing happened at the same time. Another new class of license was created, called the “Technician” class. It was a new VHF/UHF/microwave (220 MHz and higher) licensed designed to encourage experimental exploration of these frequencies, (but not intended as a communicators license!) The call sign assignments for the Technician class license followed the same rules as all of the other amateur classes, except Novice. Since Novice and Technician privileges didn’t overlap, it was possible to hold two different call signs at the same time. There was also another rule that if an amateur had homes, (such as a “snowbird”), in two different FCC districts, he or she could hold call signs that reflected the numbers of both districts. So, technically, one amateur could potentially hold four amateur call signs simultaneously! It is unknown whether anybody ever took advantage of this loophole, but it was technically possible. When the Novice license was upgraded, the Technician license was forfeited, as the General class already included all Technician privileges. This system was in force until sometime in the 1960’s.

As the number of licensed amateur operators greatly increased in the boom years following the war, “W” prefix call signs started to run out, so starting in 1947 the first “K” prefix calls began to appear in the continental US. By 1953 most districts were issuing them, and some still were until 1964. (The 9th call district area was first to implement the new “K” prefix) By the late 50’s/early 60’s all of the possible combinations of 1X3 format “K” were all assigned in some districts, so “WA” and “WB” (2X3 format) call signs started appearing. “WB” call signs were issued from 1965 to 1975, but in the mid 1970’s some districts were also running out of “WB” calls, so the FCC began recycling old “WA” calls that were expired or otherwise unused in the system. (The author’s first call sign was one of these, WA6HKP). The amateur ranks were filling up fast!

However, the recycling of old call signs was not new when they began reissuing unused “WA” call signs. Starting in 1966, (and until 1977), Extra Class licensees, licensed for 25 years or more, could apply for unused 1X2 call signs.

The Modern Era, 1975 to Present “Things get complicated”

The issuance of the recycled call signs was a lot of extra work for the FCC, so it began issuing new “WD” prefix call signs in the 8<sup>th</sup>, 9<sup>th</sup> and 10<sup>th</sup> area call districts, starting around 1976. (In 1978 the “WD” prefix was replaced with the “KA” prefix, as systematic licensing was put into place). But what happened to the “WC” prefix, which logically should have come after “WB”? The answer is; those prefixes were reserved for Radio Amateur Civil Emergency Service (RACES)

stations at the time. VHF and UHF club owned repeaters also had their own 2X3 format call signs issued, starting with the “WR” prefix. At least one “WT” (WT6AAA) call sign is known to have been issued in the 1970’s, as a “temporary” call after a FCC mixup denied a prospective amateur’s new license. (He had the same first and last names as somebody who previously had their license revoked, and once cleared up a temporary license was issued until the standard license could be processed).

In 1975 the FCC released special 1x1 call signs for special event stations, choice 1x2, and “AA-AL” and “N” prefix call signs. Starting in 1977 the 25 year licensing requirement was dropped for Extra Class upgrades to unused 1X2 call signs, and in addition, the 1X2 “N” (ie: N1AA) prefix call signs were added to the mix. Also, the new 2X2 “AA-AL” prefixes (ie: AA7CR) became available for Extra class licensees. There were certainly a lot of new “Extra Class only” call signs to choose from, and many licensees took advantage of the opportunity!

However, just as things seemed to be running smoothly for the issuance of call signs, in early 1977 a FCC employee at the 3<sup>rd</sup> District office in Gettysburg, PA was indicted for taking bribes offered by amateurs wanting special call signs, and who did not have the license class to be awarded the change, (among other issues). This unfortunate event resulted in the termination of all then informal FCC processes for issuing call signs. The new rules implemented on February 23, 1978 required that all amateur call signs must be issued only by the “systematic” process as specified in the rules. No specific call signs could be assigned; call signs were instead assigned consecutively, via a computer database. There were a few other sweeping changes:

- Amateurs were no longer required to change their call sign when moving to a new district.
- Secondary, Repeater, Control, and Auxiliary Station licenses were discontinued
- Call signs were now going to be assigned by Groups, and by license class

The Groups were defined as:

Group A -- Amateur Extra Class

Contains all “K”, “N” and “W” 1x2, most 2x1, and most “AA-AK” prefixed 2x2 call signs

Group B -- Advanced Class

Contains most “K”, “N”, and “W” prefixed 2x2 call signs

Group C -- Technician & General Class, (and later, the Technician Plus Class)

Contains all “N” 1x3 call signs. Unassigned “W” and “K” prefixed 1x3 call signs are not issued under the sequential call sign system, but are available under the later Vanity call sign system

Group D -- Novice Class

Contains most “K” and “W” prefixed 2x3 call signs. The letter “X” may not be the first digit of the suffix.

Note that no provision had been made for the issuance of AA-AL and NA-NZ prefixed 2x3 call signs, and these call signs are not currently issued to anyone.

In 1995 the Vanity “for a price” program opens, consisting of four “gates”:

Gate 1: 5/31/96, for those amateurs that had held a call before, or eligible for “in memoriam” calls

7/22/96, for Club station trustees that were eligible for “in memoriam” calls

Gate 2: 9/23/96, Amateur Extra requests

Gate 3: 8/6/97, Advanced Class requests

Gate 4: 12/2/97, Everybody else

So now we have the full history of the ham radio call sign, from the infancy days of amateur radio, until the present day. What does the future hold for our call signs? Who knows? Eventually, the “N” and “A” 2X3 call sign formats will have to



In conclusion, please take the time to appreciate the past efforts and tenacity our forefathers, and especially the gallant early efforts of the ARRL, had to ensure that the hobby we all enjoy as radio amateurs even exists today. Our unique call signs define who we are as amateurs, and have from the start. Please remember to take good care of our special call sign heritage for future generations of amateurs.

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de Eham (May 20)

[ Ed. - Lots of changes in ham radio down the the years. My late Uncle, and that of Bob ,K9RN, was W4MO . In 1928 when he first went into ham radio his call was 4MO which was later changed to W4MO. Some of changes over the years and some weren't so good. ]

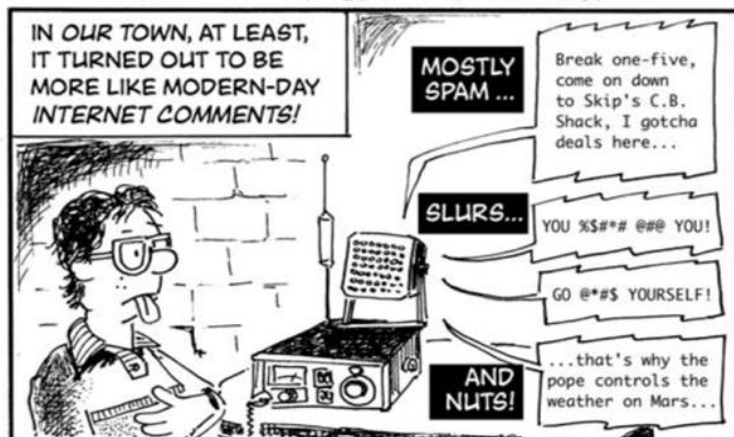
By the way, are you a member of an amateur radio club?  
Perhaps you're a member of more than one? Are you or have

### SPURIOUS SIGNALS

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